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**SPECIAL DATA COLLECTION SYSTEM (SDCS) EVENT REPORT.  
UNIMAK ISLAND REGION, 16 MAY 1975**

**K. J. Hill, et al**

**Teledyne Geotech**

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**Unimak Island Region, 16 May 1975**

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January 1976

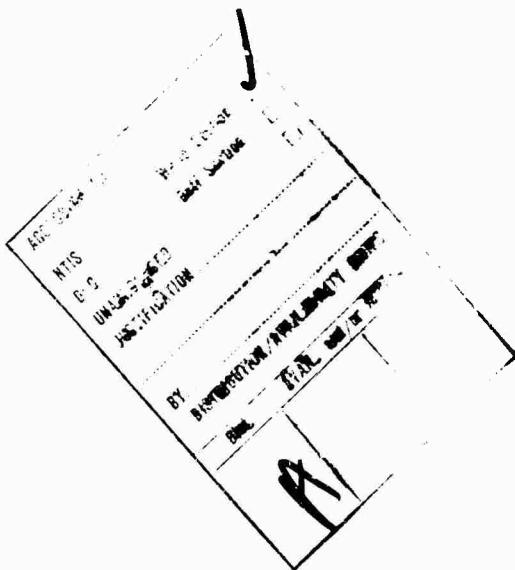
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SDCS EVENT REPORT NO. 46

Unimak Island Region, 16 May 1975

This event report contains seismic data from the Special Data Collection System (SDCS), and other sources for the above event. Published epicenter information from seismic observations is:

	"P" Arrival	Origin Time	Lat.	Long.	$m_b$	$M_s$
NORSAR	08:08:29.8	07:57:58	55 N	162 W	5.3	N/A
LASA	08:04:51.4	07:57:53	54.3N	163.7W	5.0	N/A
Hagfors	08:08:35.2	07:57:11	48 N	171 W	6.2	5.3

Using SDCS stations, LASA and NORSAR, the epicenter location and magnitudes become

07:57:44.2    53.7N    163.7W    4.8    4.6

All SDCS stations were operational during this period.

Short-period signals associated with this event were recorded at WH2YK, RK-ON, FN-WV, HN-ME, LASA and NORSAR. CPSO short-period data were not recoverable from the analog tape. Horizontal SP channels at WH2YK, RK-ON and HN-ME were rotated. Horizontal SP channels at FN-WV were not rotated due to unknown instrument orientation.\*

Long-period signals were recorded at WH2YK, RK-ON, FN-WV, HN-ME, ALPA, LASA and NORSAR. CPSO long-period data were not recoverable from the analog tape. The operating gains of the LP vertical channels at HN-ME and RK-ON were questionable because the instruments were not responding properly. Horizontal LP channels at RK-ON were rotated. Horizontal LP channels at HN-ME were not rotated because of unknown gain of the LP radial channel. Signal clipping at WH2YK prevented rotation of the horizontal LP channels. Horizontal LP channels at FN-WV were not rotated due to unknown instrument orientation.\* Validity of the ALPA, LASA and NORSAR vertical beams is questionable and horizontal beams were not included because of program recovery problems.

Scaling factors on plots are millimicrons at 1 Hz (not corrected for instrument response) with the exception of LASA and NORSAR short-period plots. LASA SP scaling factors are millimicrons per inch. Scaling factors are not reported for NORSAR short-period.

\* Due to operational problems the instrument hole lock was repositioned and the known orientation lost. Situation corrected 24 May 75 when the instrument was moved to a new borehole.

## STATION DESCRIPTION

SITE CODE	LOCATION	SITE COORDINATES DEG 'N SEC'S	ELEVATION METERS	SHORT. PERIOD	INSTRUMENTATION LONG. PERIOD
ALPA	Alaska	65 14 00.0 N 147 44 36.0 W	626	None	31300
CPSO	McMinnville, Tennessee	35 35 41.4 N 085 34 13.5 W	574	6480 V 7515 H	SL210 V SL220 H
FN-WV	Franklin, West Virginia	38 32 58.0 N 079 30 47.0 W	910	KS36000	KS36000
LASA	Billings, Montana	46 41 19.0 N 106 13 20.0 W	744	HS10	7505A V 8700C H
HN-ME	Houlton, Maine	46 09 43.0 N 067 59 09.0 W	213	18300	SL210 V SL220 H
NORSAR	Kjeller, Norway	60 49 25.4 N 010 49 56.5 E	379	HS10	7505A V 8700C H
RK-ON	Red Lake, Ontario	50 50 20.0 N 093 40 20.0 W	366	18300	SL210 V SL220 H
WH2YK	White Horse, Yukon	60 41 41.0 N 134 58 02.0 W	853	18300	SL210 V SL220 H

HYPOCENTER DETERMINATION

INPUT FCF EVENT      16 MAY 75  
 07:57:53.0      54.300N      163.700W      0KM.

STA.	ARRIVAL	RESIDUALS		DIST.	AZ.
		CAIC	REST		
WB2YK	08 01 41.2	-0.1	-0.0	17.0	54.0
ZAC	08 04 51.4	0.3	0.6	36.6	77.0
BK-CN	08 05 31.2	0.5	0.2	41.4	64.3
FN-WV	08 07 29.3	-0.6	-0.6	56.9	68.6
HN-MP	08 07 33.7	-0.1	-0.5	57.5	55.0
NAC	08 08 29.8	0.1	0.3	65.8	2.9

67 BERRIN TRAVEI TIME TABLES

ORIGIN	IAT.	LCNG.	DEPTH (KM)	SDV	IT	STA
07:57:57.2	54.115N	163.115W	77. CAIC	0.4	4	6
07:57:44.2	53.656N	163.657W	0. REST	0.5	3	6

CAIC	REST
0 . 1	0 . 1
0 . 1	0 . 1
0 0 . 1 3	0 0 . 1 3
0 0 0 0 0	0 0 0 0 0
0 . 0	0 . 0
0 . 0	0 . 0

CHI2 COVERAGE ELLIPSE; 95 PER CENT CCNF..LEVEL, SDV= 1.39  
 MAJCF 80.2KM. MINCF 49.8KM. AZ= 11 AREA= 12563 SQ.KM. REST

## DATA SUMMARY

INPUT FOR EVENT 16 MAY 75  
 07:57:53.0 54.300N 163.700W 0KM.

STA.	PHASE	ARRIVAL			INST	PER	A/T	MAGNITUDE		
		TIME						MB	MS	DIP
ALFA	LP	08 05	54.0	LPZ	20.0	39.		3.86		14.1
WH2YK	EP	08 01	41.2	SPZ	0.6	279.	5.05			17.0
IAC	EP	08 04	51.4	AB	0.9	35.	4.79			36.6
IAC	LR	08 17	57.0	LPZ	23.0	148.		4.85		36.6
RK-ON	EP	08 05	31.2	SPZ	0.5	19.	4.48			41.4
RK-CN	E	08 17	00.0	LPN	24.0	303.				
FN-WV	EP	08 07	29.3	SPZ	0.8	19.	4.78			56.9
FN-WV	LC	08 28	54.0	LPF	20.0	181.				
FN-WV	LR	08 33	03.0	LPZ	22.0	143.		5.03		56.9
HN-ME	EP	08 07	33.7	SPZ	1.0	12.	4.58			57.5
HN-ME	E	08 27	07.0	LPF	26.0	39.				
NAC	EP	08 08	29.8	AB	0.6	44.	5.34			65.8
NAC	LR	08 38	22.0	LPZ	22.0	54.		4.67		65.8

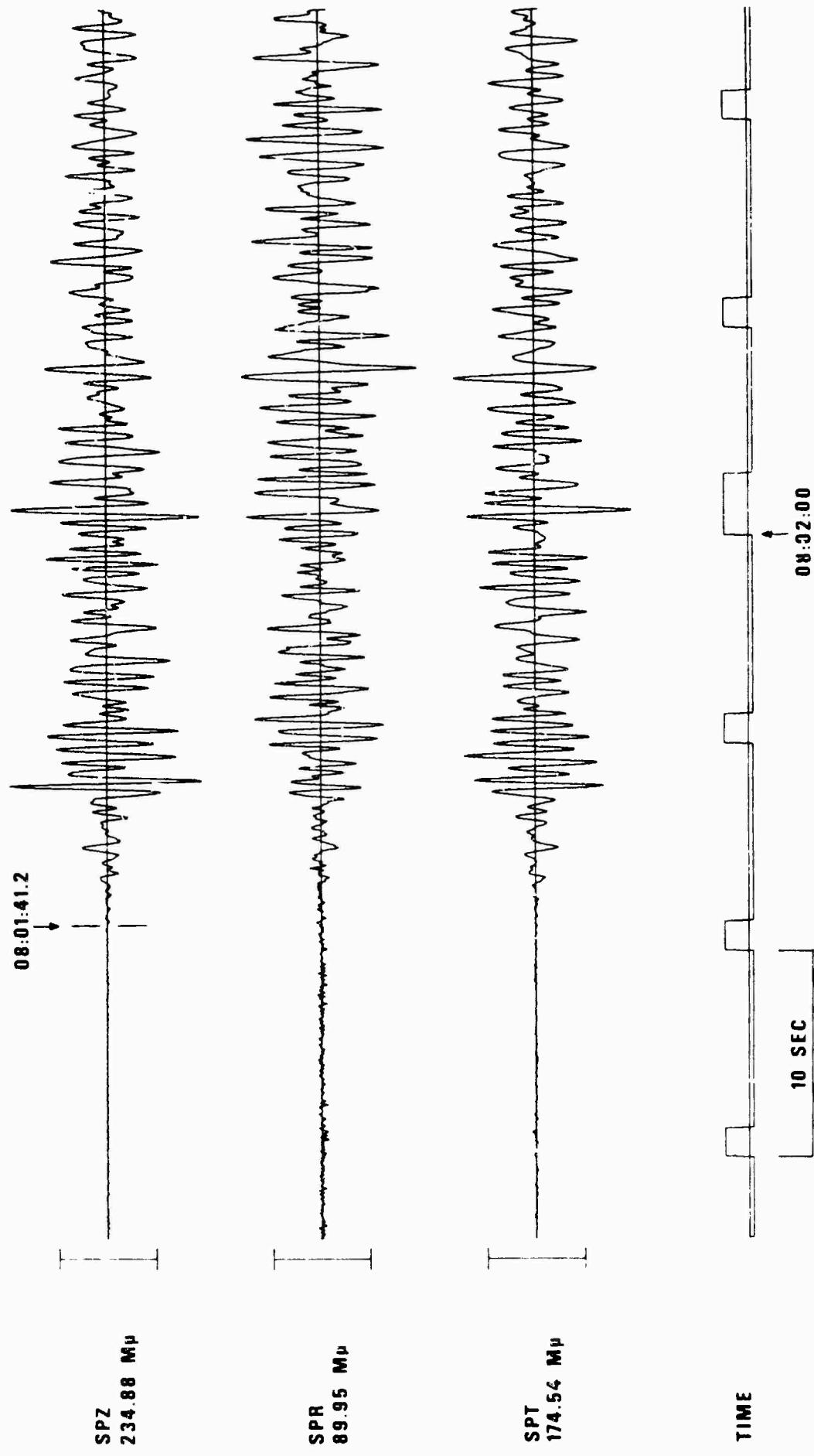
ORIGIN	IAT.	ICNG.	DEPTH (KM)	MAG	SDV	STA	IPMAG	LPSDV	LPSTA	
07:57:57.2	54.115N	163.115W	77.	CAIC	4.79	0.24	5	4.60	0.5	4
07:57:44.2	53.656N	163.697W	0.	REST	4.79	0.33	5	4.60	0.5	4

WH2YK NOT USED IN CALC RUN SP AVG. MAG.

WH2YK NOT USED IN FEST RUN SP AVG. MAG.

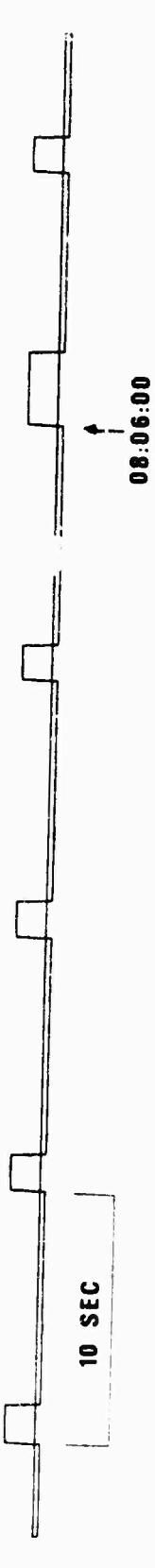
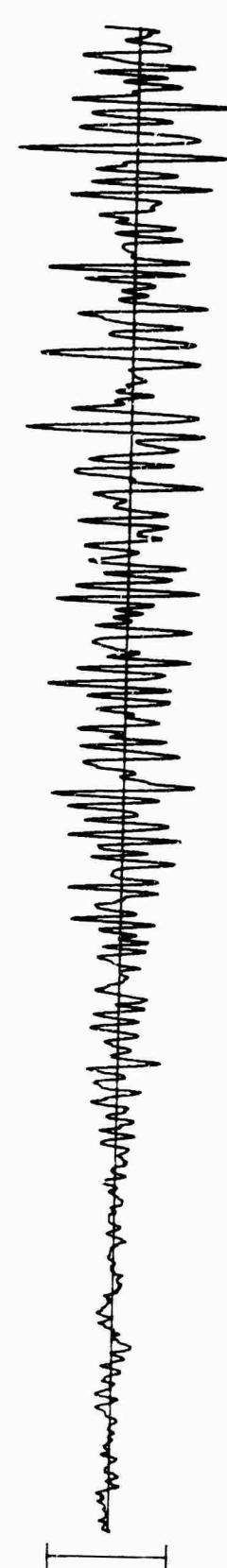
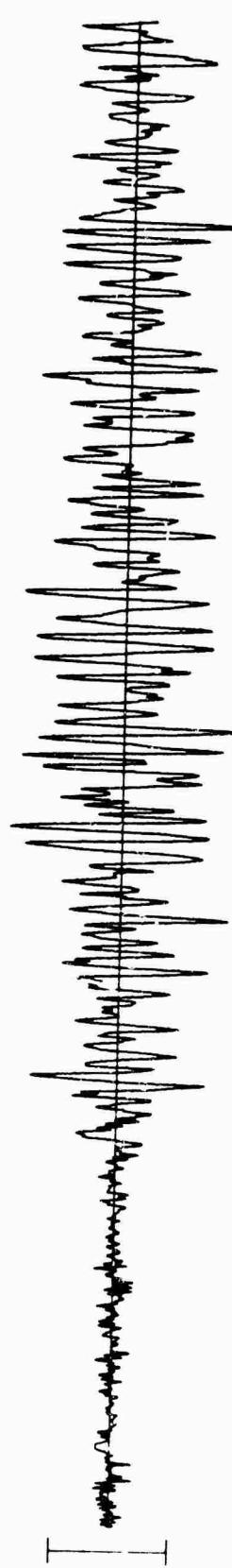
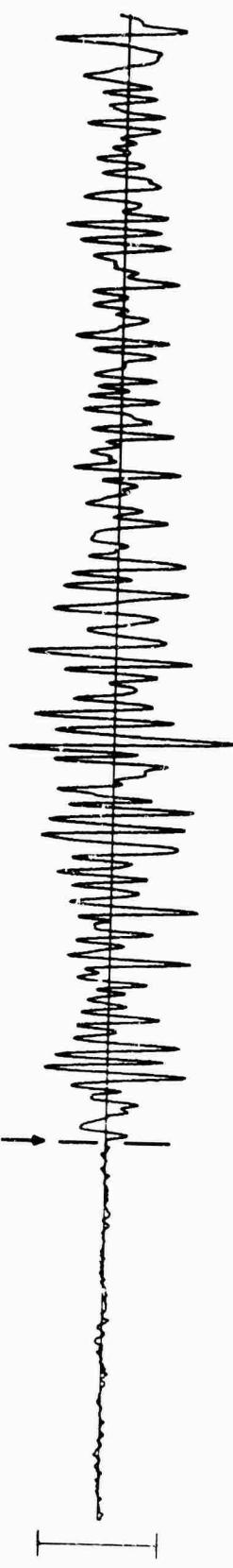
Short-period magnitudes (mb) used in averaging are restricted to those recorded at distances between 20 and 110 degrees from the epicenter.

WH2YK 16 MAY 75



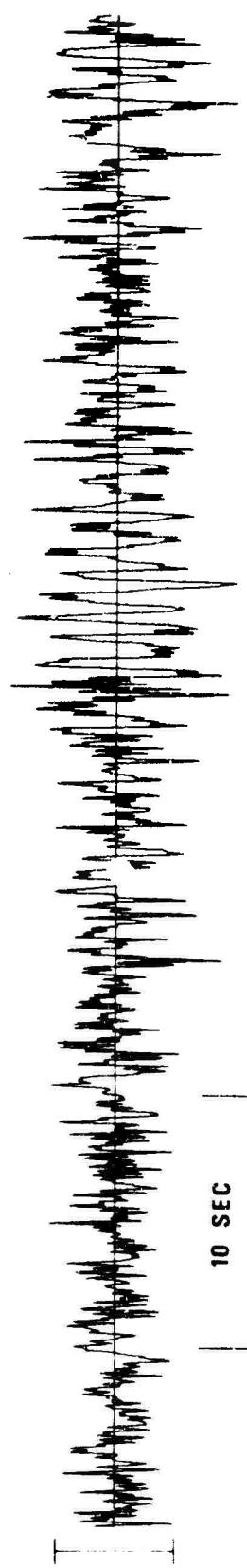
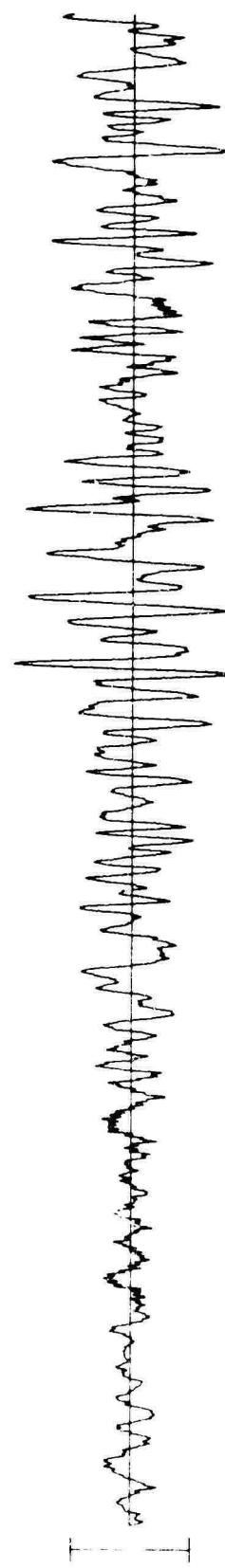
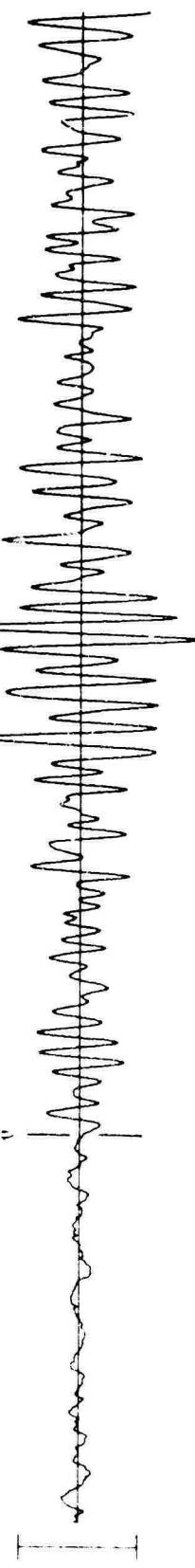
KK-ON 16 MAY 75

08:05:31.2



FN-WV 16 MAY 75

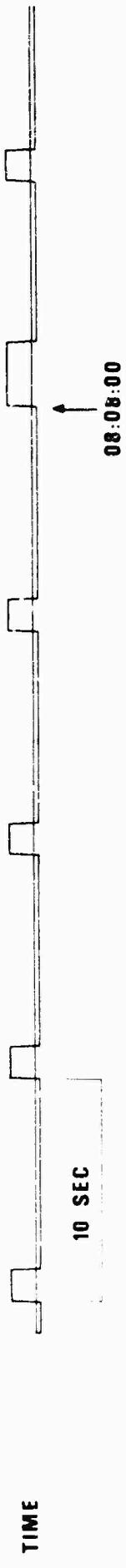
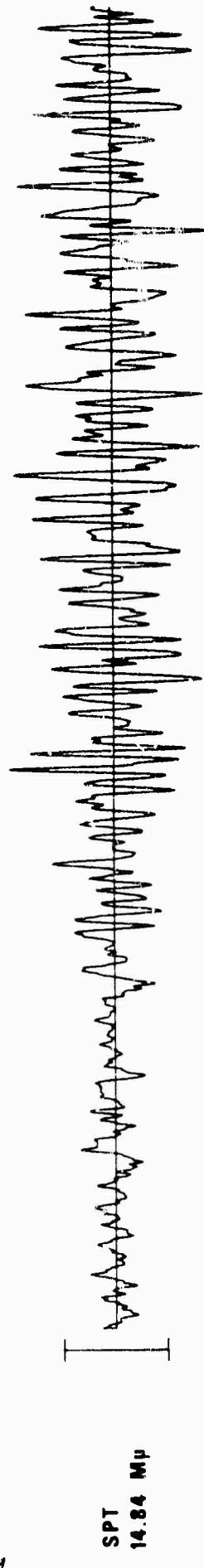
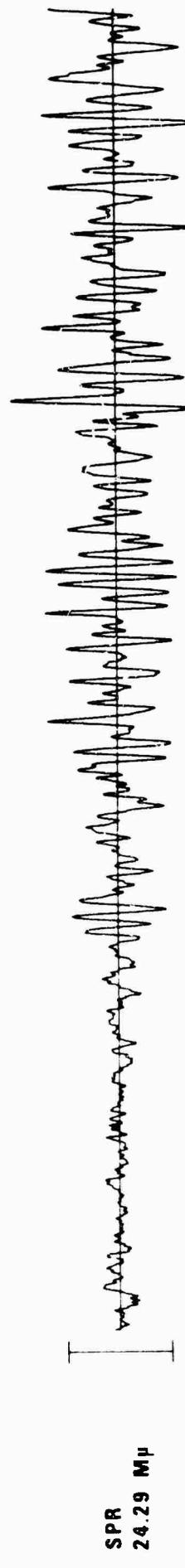
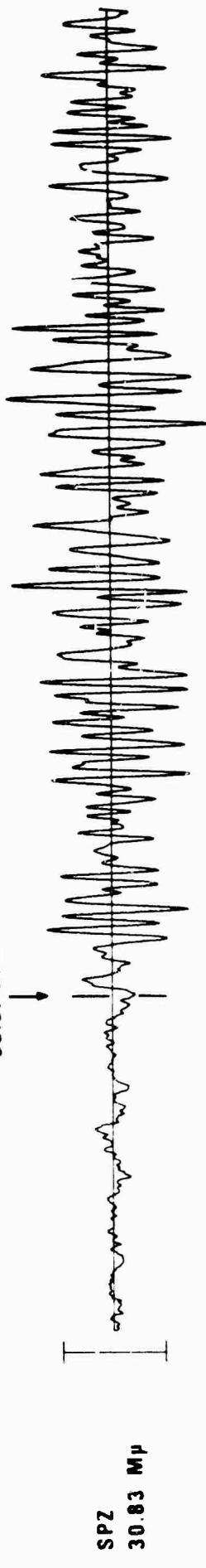
08:07:29.3



10 SEC

HN-ME 16 MAY 75

08:07:33.7



## LASA

1 16 MAY 1975  
2 7 57 53 54.3N 163.7W 60G C 5.0 10 UNIMAK ISLAND REGION  
3 8 4 51.4 LAO P 37.6 1.4 13.1 36.5 303.8

EPX 90842

BP-B 0.6-2.0 HZ

ABN 6.2

08.04.41.4

AB 65

FAB 49

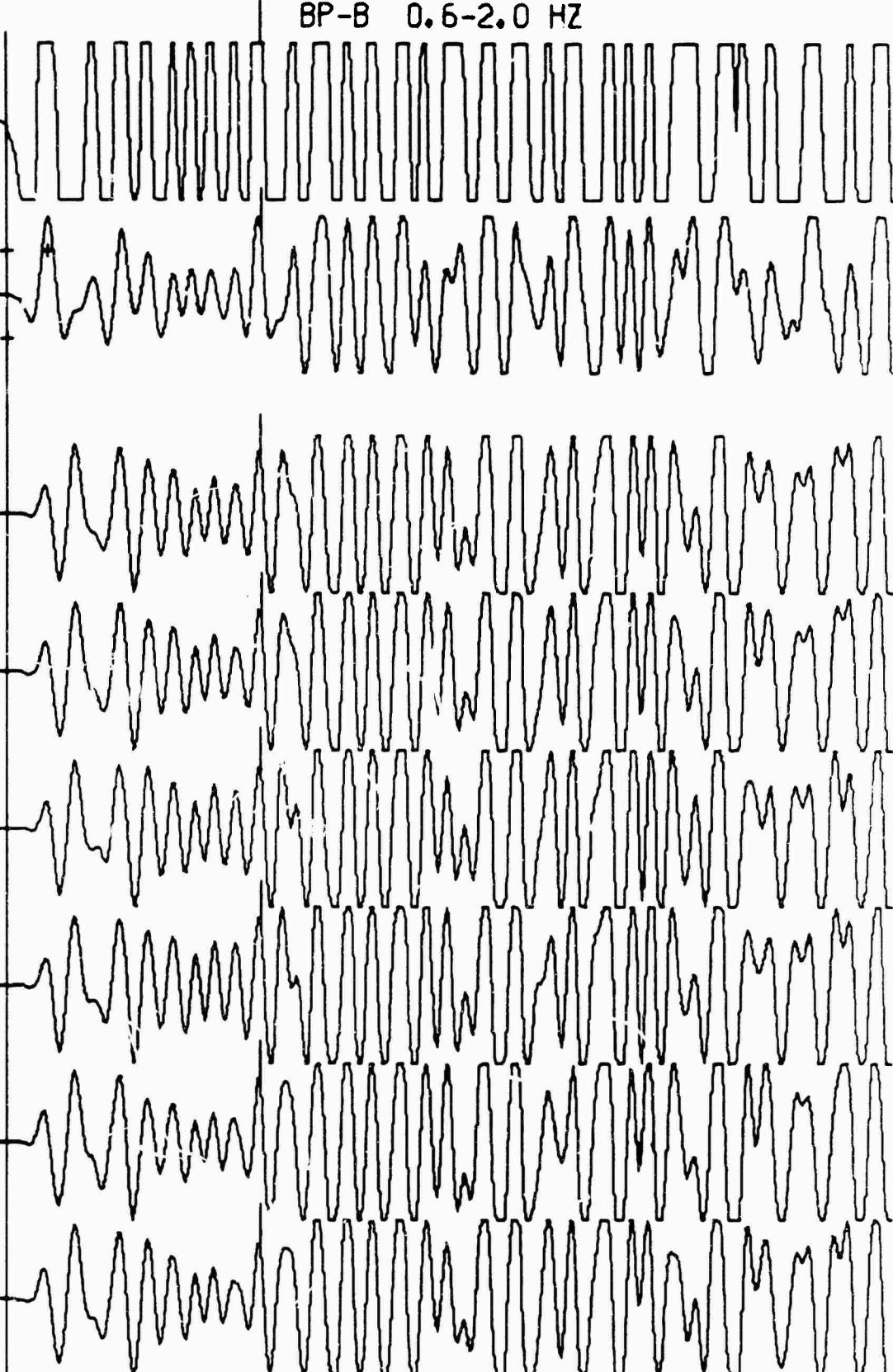
WAB 50

PAB1 53

PAB2 61

PAB3 40

PAB4 41



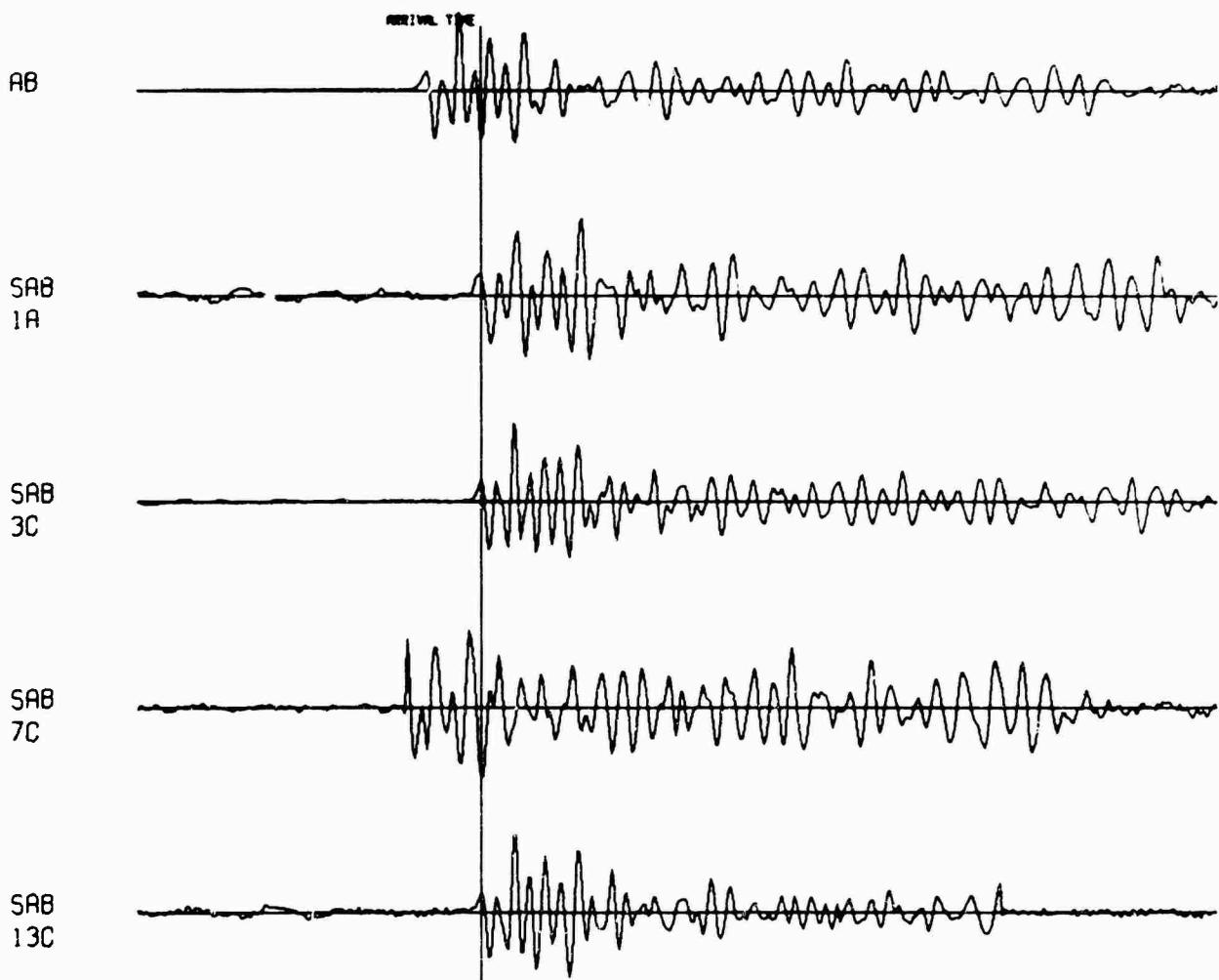
10 SEC

# NORSAR EVENT FILE 16 MAY 75

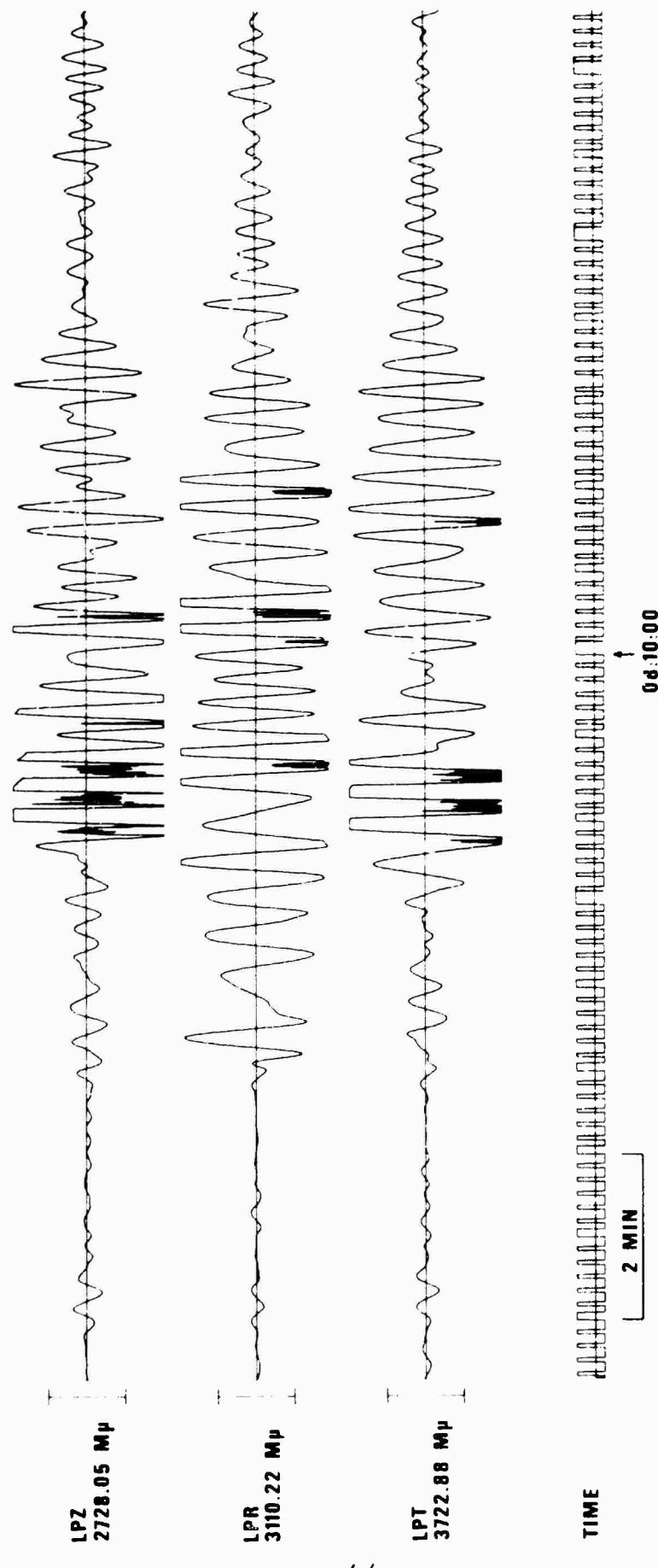
EPX NO. 46810 ARR. 8.8.30.8 55.0N 162.4W 5.4MB 33KM

DIST = 64.4 AZI = 355.7 AMP = 28.5 PER = 0.6 UMETH 2

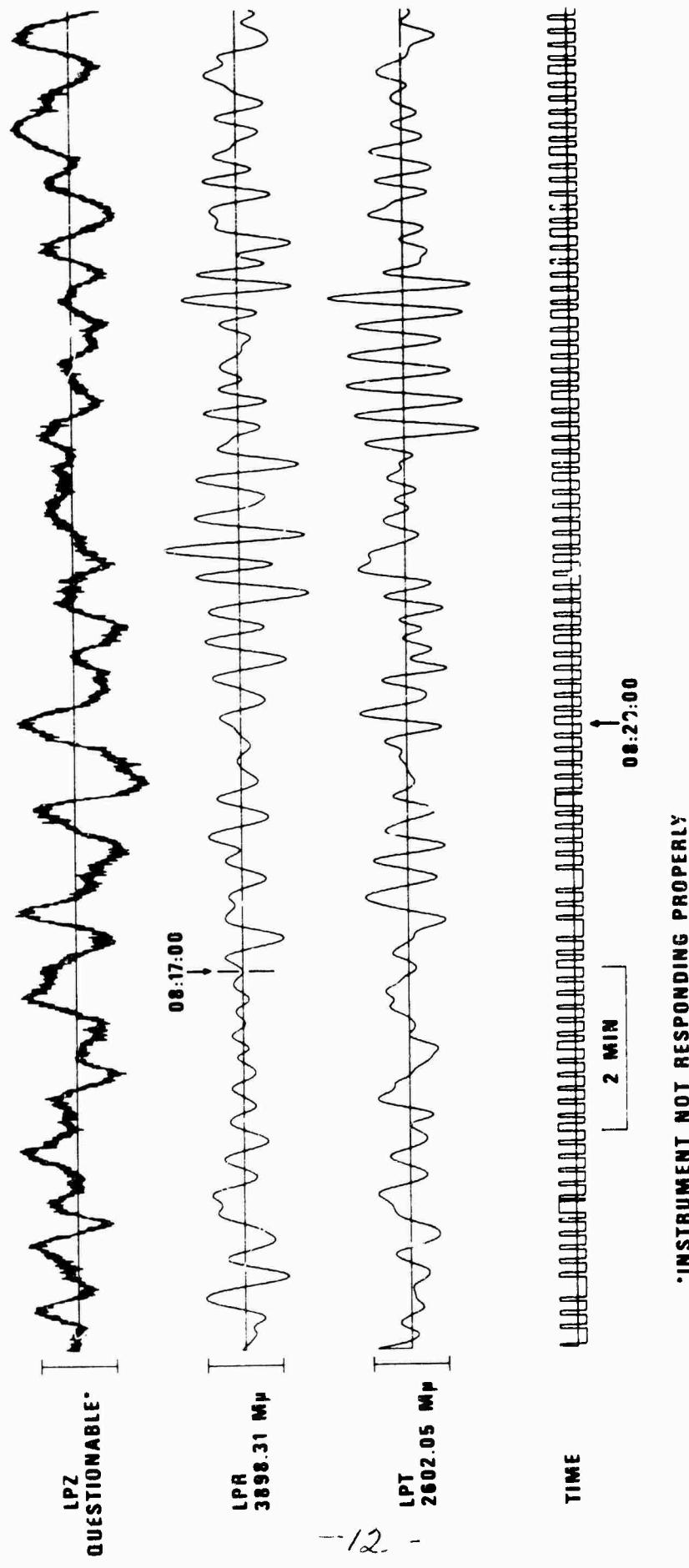
SCALE | = 5 SECONDS



WH2YK 16 MAY 75

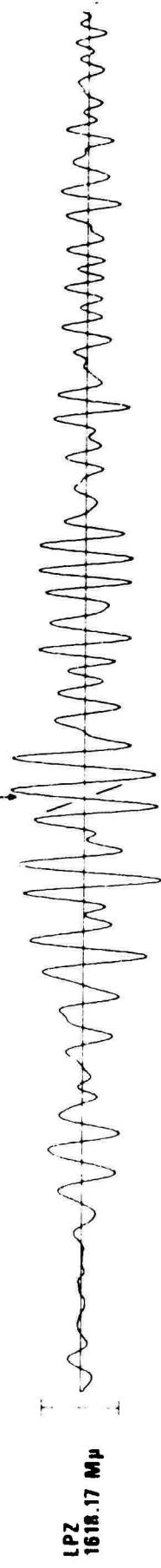


RK-ON 16 MAY 75



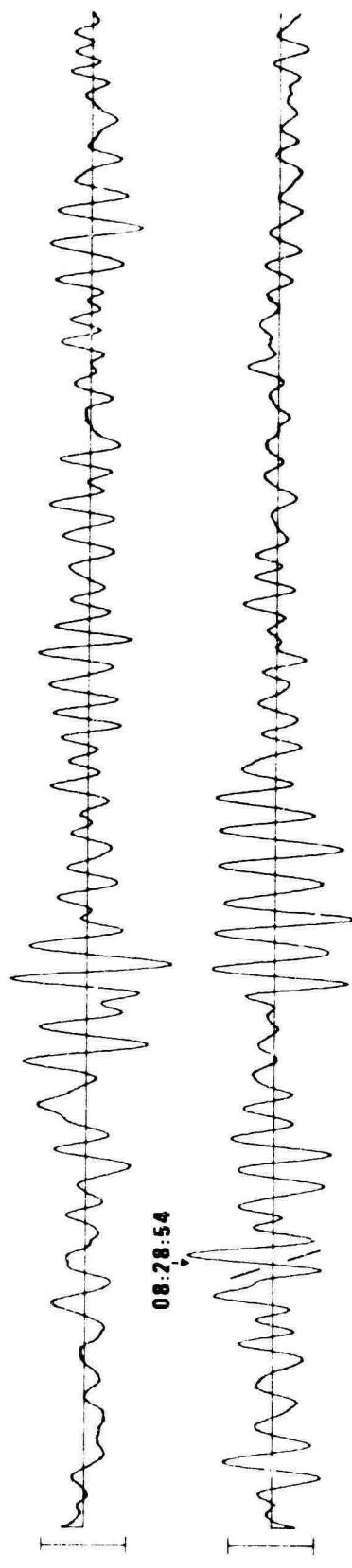
FN-WV 16 MAY 75

08:33:03



LPR 1677.84 M $\mu$

08:28:54



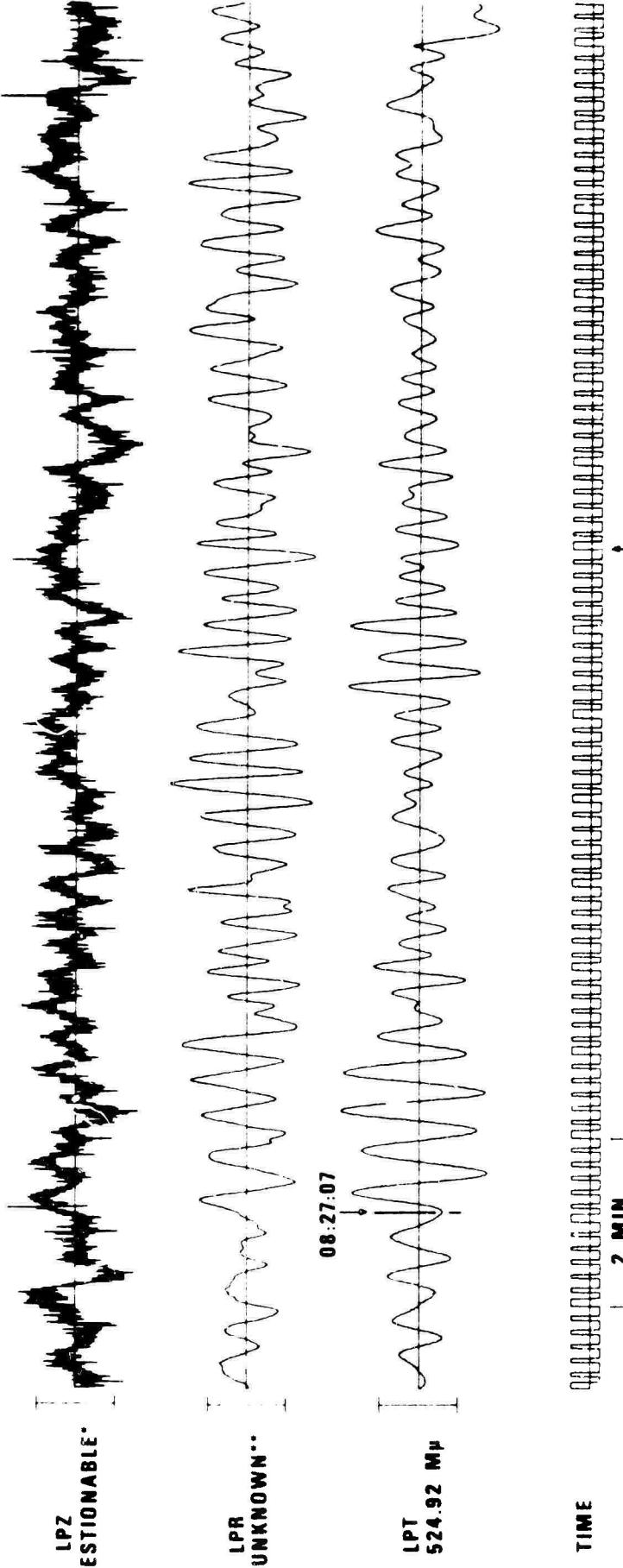
LPT 2074.05 M $\mu$

TIME

2 MIN

08:35:00

NN-ME 16 MAY 75



ARRAY LONG PERIOD VERTICAL BEAMS 16 MAY 75

